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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/776,409	02/02/2001	Ludwig Hellenthal	HM-396	4073

7590 10/06/2004

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EXAMINER

FORD, JOHN K

ART UNIT	PAPER NUMBER
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3753

DATE MAILED: 10/06/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/776,409

Applicant(s)

HELLENTHAL ET AL.

Examiner

John K. Ford

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 6/21/04
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-5 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-5 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- ☐ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: \_\_\_\_\_

Applicants' response of September 24, 2003 has been entered pursuant to the filing of an RCE and has been studied carefully.

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claim 1 is rejected under 35 U.S.C. 112, first paragraph, because the specification, while being enabling for using two check valves to prevent fluid loss from the roller in the event both the supply and exhaust flexible connecting hoses are torn off, does not reasonably provide enablement for using a single valve (as currently encompassed in claim 1) and a loss of only one of forward flow pressure or rearward flow pressure (as currently encompassed in claim 1) to prevent fluid loss from the roller.

The specification does not enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the invention commensurate in scope with these claims.

A single valve either in the forward flow means (i.e. conduit 3) or rearward flow means (i.e. conduit 11) cannot prevent fluid loss from the roller by itself. By disclosure at least two separate valves are required to perform this function (one valve in the inlet flow path 5 and one valve in the outlet flow path 6). As well, if only the outlet flexible connecting hose is ruptured, the supply conduit connected to inlet pipe 3 will continue to pump fluid through the roller and out of the discharge duct 11, unabated. The functional

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recitation associated with the "at least one shut-off device" is over broad in these two aspects.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1,2,3 and 5 are rejected under 35 U.S.C. 103(a) as being unpatentable over the combined teachings of Niskanen et al and Spatafora.

Niskanen in Figure 4 shows a thermal roll in which the inlet and outlet are in opposite roller necks (similar to Spatafora). Figure 5 of Niskanen teaches as an alternative to the Figure 4 a roll with an inlet and an outlet in the same roller neck is an art recognized equivalent. Applicants are doubtlessly familiar with both types of rolls given their conventionality.

Spatafora teaches a valve seal 66 (Fig. 3) and a valve seal 67 (Fig. 6) at each roller neck. Each of these valve seals closes the corresponding inlet and outlet passages when the roller is removed from the frame 2. When the roller is removed the flow pressure drops to zero since the roller is no longer connected to the heat exchange fluid circulating circuit.

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To have used at least one of Spatafora's valve seals in the Figure 5 roller of Niskanen would have been obvious to one of ordinary skill to avoid the drawbacks of contaminating the portion of the cooling circuit extending through the roller from being damaged when it is washed particularly when Niskanen's Figure 5 roller was used for a gumming operation.

Applicant should note that "the at least one shut-off device" is not being claimed in means plus function format hence the functional language is treated under the provisions of MPEP 2114 (incorporated by reference here) where it states, in pertinent part, that claims directed to apparatus (not in means plus function format) must be distinguished from the prior art in terms of structure rather than function.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-5 are rejected under 35 U.S.C. 103(a) as being unpatentable over the conceded prior art discussed on pages 2-4 of the specification in view of Bartholomew.

The discussion of the prior art on pages 2-4 of the specification shows that rollers in which the hoses rupture contributes oil to an ensuing fire that is difficult to extinguish.

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Apparently it is known to use sprinklers to reduce the fire hazard. Nevertheless, oil in the roller continues to leak out for some time feeding the fire.

Bartholomew teaches, in an art analogous to the one applicants are working in, the use of multiple check valves (see Figure 3) in both the inlet and outlet conduits of an oil filled device (a tank) to prevent leakage from the tank when one more of these conduits is ruptured. (col. 5, lines 11-13). Clearly such leaking fuel oil presents a significant fire hazard analogous to that identified by applicants.

One of ordinary skill aware of the dangers of leaking flammables would have looked into arts reasonably related to the problem seeking a solution. Namely one of ordinary skill would have had ample motivation to look at fuel tank systems and means to suppress leakage from them.

To prevent significant leakages such check valves as disclosed by Bartholomew would necessarily be installed in the roller as close to the potential rupture point (i.e. the joint between the roller and the fluid connector) as possible.

Claims 1 – 5 are rejected under 35 U.S.C. 103(a) as being unpatentable over the prior art as applied to claim 1 - 5 above, and further in view of Spatafora or Carroll.

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Spatafora teaches locating cut – off valves in the journal area of the roller. See Figure 8 showing valve seal 66 cutting off flow in area 49 (see Fig. 2, left side) and in Figure 9 valve seal 67 cutting off flow in area 48 (see Fig. 2, right side). Carroll teaches a check valve 37 in the roller neck to prevent backflow in the event of fitting 33 rupturing. To have located the check valves taught by Bartholomew in the journal area of the conceded prior art roller would have been obvious to one of ordinary skill in view of such a teaching by Spatafora or Carroll.

Applicant's comments about Bartholomew are unconvincing because applicants merely state a bald conclusion that it would be unobvious to use the check valve system of Bartholomew in a thermal roller system.

Applicants broadly state the purpose of Bartholomew to be a "fuel filling system for automobiles" when it is, in fact, "yet another object of the invention is to provide a fuel filling pipe system which employs check valves [like applicants] at the gas tank if the filling system [analogous to applicants' supply and discharge lines disclosed on page 8, lines 15-17 of their specification] are ruptured, as during a collision" (Bartholomew, col. 2, lines 1 – 4 and col. 5 lines 11-13). Applicants have not suggested any reasons why one of ordinary skill would not look at safety devices to prevent the leakage of oil from reservoirs in the event of a supply or return hose rupture in looking for a safety device to prevent a roller reservoir filled with oil leaking in the event of a rupture in a supply or return hose feeding oil to that reservoir.

Regarding Spotafora, it merely was relied upon to teach a location for a cut-off valve in the journal area of a roller (i.e. what applicant refers to as a "roller neck") and nothing more. The rejection never proposed using the manually activated valve 55 of Spotafora in the combination of the conceded prior art / Bartholomew. It merely taught that locating the cut-off valves of Bartholomew in the roller neck of the conceded prior art would have been an obvious location.

On page 7 of the September 24, 2003 counsel states that "simply because the present invention and the reference [to Bartholomew] both try to prevent a fire hazard does not mean that they are in analogous arts." The Examiner believes, contrary to counsel's opinion, that is precisely why one of ordinary skill would look see how the problem is solved in other areas (arts) faced with the same problem. It is submitted that counsel has failed to articulate anything other than his own conclusion that they are non-analogous arts. The reference need not provide the teaching to make the combination, see In re Lintner 173 USPQ 560 (CCPA 1972) and In re Dillon, 16 USPQ2d 1897 (Fed. Cir. 1991), however in this case Bartholomew explicitly teaches the motivation relied upon by the Examiner, (i.e. fire prevention).

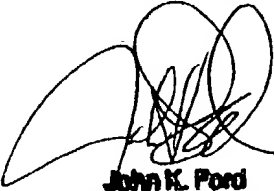
Regarding the request that the Examiner "clearly indicate" where the references provides the motivation, it is submitted that the Examiner has made his position on motivation abundantly clear and that Applicants are capable of reading the references



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for themselves. The motivation is fire prevention. The check valves are shown. The problem of fire is admitted in applicant's prior art. One of ordinary skill would have reasonably looked to art concerned with preventing spills of flammable liquid in the event of line ruptures to arrive at the claimed subject matter. The fact that Bartholomew is not a heated roller makes the rejection in the nature of a 35 USC 103 rejection and not a 35 USC 102 rejection. It is the Examiner's position that there is no impermissible hindsight in employing a system comprising at least one pressure actuated valve for preventing fluid loss from a reservoir whether that reservoir happens to be a fuel tank or an oil filled roller.

Any inquiry concerning this communication should be directed to John Ford at telephone number 703-308-2636.



**John K. Ford**  
**Primary Examiner**

Applicant's reply on June 21, 2004 has been studied carefully.

35 USC 112, first paragraph

Applicant's only comments with respect to the 35 USC 112, first paragraph, rejection is a single paragraph on page 4 (first full paragraph). In effect applicant argues that even one valve can keep the fluid from flowing out of the roller if no air enters the roller. That is true, but as admitted by applicant, air must eventually enter the roller (i.e. "until air enters the roller to allow the fluid to flow from the open end," quoting applicant's June 21, 2004 response, page 4, first full paragraph). Thus, the Examiner is correct in his conclusion that you need two separate valves to prevent the fluid from exiting the roller if both the flexible inlet and the flexible outlet hoses are severed.

It is also noted that applicant has not addressed the other aspect of the 35 USC 112, first paragraph rejection, namely that if only the outlet flexible connecting hose is ruptured the fluid will flow out the discharge duct 11 unabated regardless of whether one or both valves are present because the inlet hose, still connected, will continue to supply liquid. This is explicitly contemplated in the "or" aspect of the "and/or" recitation in claim 1, line 11 (i.e., when only the rearward flow pressure drops significantly or drops to zero when only the outlet flexible connecting hose is ruptured, not the inlet flexible connecting hose). Claim 1 as written simply encompasses a functional statement of operation that goes well beyond the capabilities of this particular apparatus. Applicant admits as much at the top of page 4 (lines 1-3) of his June 21, 2004 response by failing to make any argument as to why the Examiner is in error regarding this conclusion. This limitation cannot be met by applicant's disclosed device and, consequently, is not something that Applicant could have had possession of.

35 USC 103

Regarding Spatafora, applicant correctly notes that the valves seal only when the roller is lifted out. It is submitted that when the roller is lifted out both the forward and rearward flow pressure drop to zero. Applicant's remarks state that the claims require a valve "operated in accordance to pressure." As the Examiner reads the claims the word "when" in claim 1 does not necessarily mean that the "shut-off device" must be pressure responsive. Again claim 1 is broader than applicant argues. The word "when" in its broadest reasonable reading simply means "at the time that."

Regarding the non-analogous art argument, the relevant art is that of fluid systems that prevent the feeding of combustible liquids from reservoirs into potentially incendiary conditions.

The Examiner maintains one of ordinary skill seeking means to prevent fires would have looked into safety devices in any related art that dealt with fluid systems. Bartholomew is classified in such a class (class 137) in the U.S. patent office that deals generically with fluid handling systems and using the schedule for class 137, including its definitions, was how the reference was located. Given its placement in a class and sub-class that appeared relevant to Applicant's disclosure does not suggest that it is non-analogous. It is clearly not non-analogous art, applicant's comments to the contrary notwithstanding.

Regarding the argument on page 9 that valves as disclosed by Bartholomew have "existed for decades" and have "not previously been used in rollers," it is noted that there is no evidence in the file that this is a true statement. Maybe they are or have been used in rollers and

no one filed a patent application on such valves. Again the "pressure responsive" aspect argued by applicant simply isn't a positively set forth limitation in claim 1, in particular.

In Spatafora applicant is correct : "Spatafora does not teach a valve arranged in a roller and operative to close when an accident occurs." However, nothing in any of applicant's claims, claims this.


The argument that Spatafora and Bartholomew cannot be combined ignores the discussions of the references in the rejections and is therefore not convincing.

The previous rejection is incorporated by reference here and attached as an appendix to this office action.

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Any inquiry concerning this communication should be directed to John Ford at telephone number (703) 308-2636.



**John K. Ford**  
Primary Examiner

Appendix  
copy of previous office action